

REMARKS

Reconsideration of the present application is respectfully requested in view of the above amendments and the following remarks. Claims 20-23 are presently under consideration. Claim 20 has been amended to more particularly point out one embodiment of the invention. It is urged that support for all the above amendments may be found throughout the specification as originally filed, for example, at page 7, lines 12-19 or page 102, line 25-page 112, line 19, and that none of the amendments constitutes new matter. It should also be noted that the above amendments are not to be construed as acquiescence with regard to the Examiner's rejections and are made without prejudice to prosecution of any subject matter removed or modified by this amendment in a related divisional, continuation or continuation-in-part application.

Applicants note that according to the Office Action Summary, an Information Disclosure Statement (IDS) form 1449 was included with the Office Action. Applicants note that no form 1449 was received. Applicants assume that the IDS referred to was the Supplemental IDS sent April 24, 2002, as all other IDS references filed in this case have been signed off and returned. Applicants respectfully request a signed copy of the PTO Form-1449 filed April 24, 2002.

Claims Rejected Under 35 U.S.C. § 102(a) or § 103(a)

Claims 20-23 stand rejected under 35 U.S.C. § 102(a) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Chen *et al.*, WO 99/54738, for the reasons already of record. Specifically, the Action alleges that Chen, *et al.* teach the claimed polypeptide and a pharmaceutically acceptable adjuvant. The Action further contends that Chen teaches that the KOC-1 (100% identical to the claimed polypeptide of SEQ ID NO:176) provides antibodies when expressed in a subject. The Action further alleges that since the KOC-1 is a cancer-associated antigen, the skilled artisan would have been motivated to combine KOC-1 polypeptide with an adjuvant to induce an immune response for the production of antibody as taught by Chen *et al.* with a reasonable expectation of success. The Action also asserts that it is inherent for SEQ ID NO:176 to induce a predominantly Th-1 type response. The Action

concludes that claims 20-23 are anticipated by Chen *et al.*, or alternatively, are obvious in view of Chen *et al.*

Applicants respectfully traverse this rejection on the following grounds.

Applicants submit that “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, “anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added).

As an initial matter, Applicants submit that claim 20 has been amended to additionally recite “wherein said polypeptide is useful in the detection of lung cancer”. Chen *et al.* teach the identification of the polypeptide set forth in SEQ ID NO:176 using serological screening of a melanoma expression library. However, nowhere do Chen *et al.* teach that the polypeptide set forth in SEQ ID NO:176 or any portion or variant thereof is capable of stimulating T cells. Moreover, nowhere do Chen *et al.* teach that the claimed polypeptide can be used in the detection of lung cancer, as recited in the claims as amended. Furthermore, this reference does not teach an immunogenic composition comprising the polypeptide of SEQ ID NO:176 or any portion or variant thereof and an adjuvant that induces a predominantly Th1-type response. Applicants disagree with the Action’s assertion that it would be inherent for the polypeptide set forth in SEQ ID NO:176 to induce a predominantly Th1-type response. Applicants submit that the claimed polypeptide is a self polypeptide. As such, it is not inherent that the claimed polypeptide induce any type of immune response, let alone a predominantly Th1-type response. Therefore, Applicants respectfully submit that Chen *et al.* do not anticipate the presently claimed invention.

Further, Applicants submit that without the knowledge that the claimed polypeptide is capable of eliciting T cells, as disclosed by Applicants in the present application, the skilled artisan would have had no motivation and it would not have been obvious to the skilled artisan, to combine the claimed polypeptide with an adjuvant that induces predominantly

a Th1 type response. Furthermore, Chen *et al.*, actually teach away from the instant invention in that production of antibody is associated with a Th2-type response, not a Th1-type response. As such, the skilled artisan would not have been motivated to combine the presently claimed polypeptide with an adjuvant that induces predominantly a Th1 type response with a reasonable expectation of success. Accordingly, Applicants submit that the claimed invention is not obvious in view of Chen *et al.*

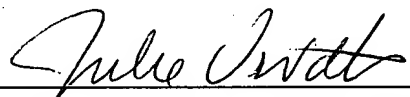
Applicants submit that the claimed invention is not anticipated or, in the alternative, obvious over Chen *et al.*, and respectfully request that the rejection under 35 U.S.C. § 102(a) or in the alternative under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Applicants respectfully submit that all the claims remaining in the application are now believed allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



Julie A. Urvater, Ph.D., Patent Agent
Registration No. 50,461

JAU:tt

Enclosure:
Postcard

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
Phone: (206) 622-4900
Fax: (206) 682-6031

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